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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,884

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Takashi Yamaguchi

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EXAMINER

BODAWALA, DIMPLE N

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

02/01/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,884	Applicant(s) YAMAGUCHI ET AL.	
	Examiner DIMPLE N. BODAWALA	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,9,13,19 and 21-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9,13,19 and 21-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The declaration under 37 CFR 1.132 filed on 11/24/2009 is sufficient to overcome the rejection of claims 1, 9, 13, 19 and 21-36 based upon Minoda (JP 2002-302795).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims **1, 9, 13, 19 and 21-36** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. Claims 1, 19, and 21 are rejected because claims cite limitations such as “...composite...have a vertical tensile strength may have from between about 20Kgf/cm² to at least 50 Kgf/ cm²” wherein such limitation raises new matter issue, because disclosure of the instant application describes that a composite have **a tensile strength from between 20Kgf to at least 50 Kgf**, but nowhere in disclosure describes that the composite have a vertical tensile strength, and, also disclosure fails to cite unit of tensile strength as cited in claims.

Response to Arguments

5. Applicant argues that the tensile strength carried out by the present invention means the vertical tensile strength as clear from the paragraph [0083] in the publication of the present application. Meanwhile the tensile strength disclosed in **Minoda (JP 2002-302795)** is carried out by the horizontal tensile strength. In order to compare the tensile strength of the composite of the claimed invention accordingly to the present application and that of the composite disclosed in Minoda (JP 795) completely, the vertical tensile

strength and horizontal tensile strength of both of the claimed composite and the composite of Minoda (JP 795) are measured respectively. Applicant argues that there is obtained that both of vertical tensile strength and the horizontal tensile strength of the composite brought about by the claimed invention of the present invention are much superior to both of those of the composite brought about by Minoda (JP 795) invention (See revised declaration). Applicant argues that one of characteristic feature elements in claims 1 and 9 each is such that the diameter of the innumerable pores made on the anodic oxidation coating is from between 25 nm to about 90 nm. By contrast, Minoda (JP 795) is negative in making the diameter of the pores less than 200 nm from the recognition describing that if the open diameter W of the holes (4) is less than 200 nm, a laminating synthetic resin material such a resin, or the like fluidizing at the time of thermal adhesion is difficult to flow into the holes and the fine pores (5) made inside the holes and as a result, it becomes difficult to exhibit a sufficient anchor effect. From this fact alone, the conclusion that such characteristic feature that limit the diameter of the pores from 25-90 nm is obvious over or anticipated by Minoda is not logically grounded.

6. Applicant argues that combination rejection of claims over **Iwasaki et al. (US 2002/0109134) in view of Minoda (JP 2002-302795)**, wherein Iwasaki primarily concern the nanostructure of porous aluminum and not a composite material. Applicant argues that Iwasaki et al. discloses plural kinds of pores are at least two kinds of pores (3,5) having different diameters, and pore (5) have a smaller diameter than that of the pore (3), wherein pores are regularly formed at predetermined positions in the anodic porous alumina, thus, the structure of the anodic oxidation coating of the instant invention as cited in claim 1 is clearly structurally different from that of the nanostructure disclosed in Iwasaki et al. Applicant argues that Iwasaki prepares the nanostructure having plural kinds of pores regularly formed by three or four steps, thus, the pores produced are not innumerable. On the other hand, claim 1 cites the innumerable pore of

the anodic oxidation coating can be formed irregularly only by a single anodizing treatment.

7. Applicant further argues that **Burnham (US 2,647,079)** is not taken interest in the diameter size of the pores of the porous aluminum oxide film, and therefore such a technical thought that the diameter size of the pores has to be set in the range of between 25-90 nm as cited in claim 1 for obtaining the foregoing strong horizontal and vertical tensile strength which cannot be obvious in light of Burnham. Applicant further argues that claim 1 cites resin, polybutylene terephthalate (PBT), polyethylene (PE), polypropylene (PP), ABS, PPS and polyacetal (POM), nowhere disclosed or suggested by Burnham. Applicant argues that the selected resin has an elastic modulus which is able to absorb the linear expansion between them, a water resisting property and a chemical resisting property, wherein such a selected resin is neither obvious over nor anticipated by Burnham.

8. In response to applicant's arguments, although the amendment might distinguish over the prior art, and the declaration provides evidence that the prior art falls outside of the claimed vertical tensile strength, such teaching of a vertical tensile strength introduces new matter as noted above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIMPLE N. BODAWALA whose telephone number is (571)272-6455. The examiner can normally be reached on Monday - Friday at 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, PHILLIP C. TUCKER can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dimple N Bodawala
Examiner
Art Unit 1791

/D. N. B./
Examiner, Art Unit 1791

/Philip C Tucker/
Supervisory Patent Examiner, Art Unit 1791